



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,044	12/21/2001	Yair Bourlas	ENSEMB.033A	5124
27189	7590	07/22/2005	EXAMINER	
PROCOPIO, CORY, HARGREAVES & SAVITCH LLP			HARPER, KEVIN C	
530 B STREET				
SUITE 2100			ART UNIT	
SAN DIEGO, CA 92101			PAPER NUMBER	
			2666	

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,044

Applicant(s)

BOURLAS ET AL.

Examiner

Kevin C. Harper

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 48-78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 48-78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments filed October 4, 2004 have been fully considered but they are not persuasive.

1. Applicant argued that Naghian does not disclose a PHY mode. However, in the specification on page 6, last line through page 7, line 2, a PHY mode is defined as a characteristic of a communication channel. In Naghian the characteristic of a communication channel is a power level (page 6, lines 13-15 and page 9, lines 18-22), which varies over time (fig. 1, steps 122 and 145). From the exemplary language used in the specification ("including, for example, modulation scheme and/or an FEC"), a PHY mode is not defined solely as a modulation type or an amount of FEC.

2. Applicant argued that Naghian does not disclose a planned (or initial) PHY mode. However, in Naghian the planned PHY mode (used at fig. 1, step 115) has the same value as the current PHY mode used to estimate traffic loading if a new call is accepted (fig. 1, step 125-140). When the new call is accepted the planned PHY mode becomes the current PHY mode because the same power level of a connection continues to be used if the first limit is not exceeded (fig. 1, steps 110 and 130).

3. Applicant argued that Naghian does not disclose whether an air link rate exceeds bandwidth commitments. However, both the load and capacity in Naghian (fig. 1, steps 110, 115, 120, 135 and 140) are related to bandwidth and data rates (page 9, lines 23-30).

4. Applicant argued that Naghian does not disclose increasing or decreasing the robustness of the modulating technique by adapting channel characteristics. Inherently, a modulation technique is used in the mobile communication system of Naghian. The modulation technique

Art Unit: 2666

for a channel in Naghian becomes more robust when the transmission power is increased and less robust when the transmission power is decreased (fig. 1, step 145; page 13, lines 2-5; page 14, lines 23-25).

Drawings

5. Replacement drawings were received on October 4, 2004. These drawings are acceptable.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 8-17, 48-61 and 63-78 are rejected under 35 U.S.C. 102(a) as being anticipated by Naghian (WO 00/49824).

6. Regarding claims 1, 3-4, 48, 51, 66-67 and 71-78, Naghian discloses a method for controlling the admission of connections in a wireless communication system (page 5, line 30 through page 6, line 2) between a base station and associated CPEs (page 6, lines 12-15). The method comprises receiving a request for a new connection (page 6, lines 9-10), summing hard bandwidth commitments for the base station including the new connection based on a planned (or initial) PHY mode (page 6, lines 13-15; note: power levels of mobile units are estimated though based on current levels -- figure 1, step 110-120), determining an air link line rate between the base station and the CPEs based on a reference PHY mode (step 120; note: first limit), if the air link line rate exceeds the hard bandwidth commitments, accepting the connection

Art Unit: 2666

(step 125), else denying the connection (step 122 and figure 3, step 175; page 7, lines 29-31).

The method further comprises, when a new connection is accepted, determining if the air link line rate exceeds a second hard bandwidth commitment based on a current PHY mode (figure 1, steps 135 and 140), if the air link line rate exceeds the second hard bandwidth commitments, allocating the air link resources (step 130 and step 140, YES; page 6, lines 28-29) and if not, determining if additional resources are available. If additional resources are available, allocating the resources to the new connection (page 6, lines 30-34), else suspending one of the existing connections (page 12, lines 12-16) including the requesting CPE (page 12, lines 9-15; figure 1, steps 140 and 145). The PHY mode varies over time (page 13, lines 2-5; fig. 1, steps 122 and 145). Further regarding claims 48 and 51, the CPEs and base station have inherent modems.

7. Regarding claims 49-50, the CAC module is at the CPEs and base stations (figures 5-8; note: control signaling for each apparatus and between each apparatus involved with call admission).

8. Regarding claim 52, a signal quality module monitors the signal quality (figure 5, steps 340 and 350) and an inherent control module selects a PHY mode based on the signal quality (page 10, lines 2-5).

9. Regarding claim 2, the air link resources are available bandwidth in uplink and downlink subframes (page 1, lines 11-15 and 22-25).

10. Regarding claim 5, connections are suspended that use a more robust PHY mode than a planned PHY mode (page 15, lines 10-13; page 9, lines 18-23 and page 12, lines 8-10 and 12-16).

11. Regarding claim 6, connections are randomly suspended (page 9, lines 1-6).

Art Unit: 2666

12. Regarding claims 8-11, 53, 57-59, 63-65 and 68, suspending of connections is implemented in a round robin fashion (page 9, lines 7-8) or based on assigned priority (page 9, lines 6-8 and page 12, lines 9-16).

13. Regarding claims 12-13 and 54-56, a more or less robust PHY mode is selected as a current PHY mode (page 13, lines 6-9) and a third hard bandwidth commitment is determined (figure 6, steps 420 and 430), and if the air link line rate does not exceed the third hard bandwidth commitments, then suspending another connection (page 8, lines 10-13 and page 12, lines 9-16; page 13, lines 6-9), else unsuspending a connection (page 9, lines 9-11).

14. Regarding claims 14-17, 60-61 and 69-70, the hard bandwidth commitments include constant bit rate connections, minimum cell rates, sustainable cell rates, and other QoS parameters include forward error correction (page 1, lines 14-16; page 3, lines 1-4; page 12, lines 5-22).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 7 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naghian (WO 00/49824) in view of Soliman (US 2002/0061006).

15. Regarding claims 7 and 62, Naghian discloses a connection admission control for a wireless system (abstract). However, Naghian does not disclose a connection admission control for a sector of a wireless system. Soliman discloses a call admission control for a sector of a wireless system (para. 34, lines 1-2 and 14-16). Therefore, it would have been obvious to one

Art Unit: 2666

skilled in the art at the time the invention was made to determine call admission within sectors of a wireless system in order to appropriately manage the admission of calls where an efficient use of network spectrum and resources are utilized through sectoring.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 571-272-3174. The centralized fax number for the

Art Unit: 2666

Patent Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin C. Harper

July 17, 2005

Seema S. Rao
SEEMA S. RAO 7/21/05
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600